

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: John T. Matthews et al.
Appl. No.: 10/712,756
Filed: November 12, 2003
Docket No.: 2003
Conf. No. 7388
Title: ***COLLAPSIBLE CANOPY AND FRAMEWORK THEREFOR***
Art Unit: 3637
Examiner: Ayers, Timothy M.

Action: ***AMENDED APPEAL BRIEF***
Date: May 1, 2007

To: Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Appeal is from the final rejection of claims 1-9, 12-14, 17, 18, 22, 24-31, 35, and 36 in the above-referenced patent application. A Notice of Appeal was mailed by Appellants on October 10, 2006, with a certification pursuant to 37 C.F.R. § 1.8, and was received by the Patent Office on October 13, 2006. An Appeal Brief was timely filed on March 5, 2007. A Notice of Non-Compliant Appeal Brief dated April 26, 2007 was received by Appellant. An Amended Appeal Brief is due one month from the mailing date of the Notification of Non-Compliance, making this Amended Brief due May 26, 2007.

In compliance with 37 C.F.R. § 41.37 and M.P.E.P. 1205.02, Appellants submit the following as their Appeal Brief in this matter through the undersigned attorney or agent.

I. REAL PARTY IN INTEREST

The real parties in interest for purposes of this appeal are the named inventors, John T. Mathews, an individual residing at 6462 Vrain Street, Arvada, Colorado, 80003 and Timothy J. Martin, an individual residing at 4211 S. Yarrow Court, Lakewood, Colorado 80235.

II. RELATED APPEALS AND INTERFERENCES

This is the first time that Appellants have appealed the rejection of this application. There are no other appeals or interferences known to the Appellants or the Appellants' legal representatives that will have a bearing on the Board's decision to be rendered in this Appeal.

III. STATUS OF CLAIMS

Claims 1-9, 12-14, 17, 18, 22, 24-31, 35, and 36 are currently pending in the application. Claims 1-9, 12-14, 17, 18, 22, 24-31, 35, and 36 have been finally rejected and are hereby appealed. Claims 15, 16, and 23 were cancelled, claims 10, 11, 19-21, and 32-34 were withdrawn, and claims 1, 22, and 35 were amended in an Amendment dated March 6, 2006. No claims have been allowed.

IV. STATUS OF AMENDMENTS

The Examiner's Office Action, dated May 10, 2006, was in response to Appellants' Amendment of March 6, 2006. Appellants filed their Notice of Appeal on October 10, 2006. Attached hereto as CLAIMS APPENDIX is a copy of the current version of pending and withdrawn claims 1-14, 17-22, and 24-36.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The subject matter disclosed is broadly directed to canopy structures that form shelters or shade devices to temporarily protect users against the elements, to provide privacy and the like. In addition, the present invention is directed to framework assemblies that support canopy coverings for such canopies. This invention specifically concerns fittings that interconnect various structural elements of the framework in a collapsible canopy.

Claim 1 and 22

As described beginning on page 12, line 14 of the specification, a representative canopy 10 is shown in Figure 1 as well as a framework 12 for such canopy as is shown in Figure 2. In each of these figures, canopy 10 and framework 12 are depicted in a fully erected state. As is shown, framework 12 includes a plurality of upright supports 14 that form legs disposed at each corner of canopy 10. Upright supports 14 have bottom end portions 15 positionable on a support surface and opposite top end portions 17. Each of upright supports 14 is formed by a pair of telescoping sections 16 and 18 so that the effective height of framework 12 and, thus, canopy 10, may be selectively varied. As is shown in Figure 1, a flexible covering 20 extends over the top of framework 12 to provide shade and shelter. In addition, side panels 22 may optionally be provided, and an opening may be formed through side panels 22' by means of a closure 24.

As discussed beginning on page 13, line 1, it should be readily appreciated that canopy framework 12 may be erected to an expanded state shown in Figures 1 and 2 or may be collapsed through an intermediate stage shown in Figure 3 to a fully collapsed state shown in Figure 4 in order to facilitate storage of canopy 10. In the collapsed state, support members 14 are oriented alongside one another; in the

expanded state, they are spaced-apart from one another. To accomplish this, peripherally adjacent ones of uprights supports 14 are interconnected by means of a scissor assembly as shown in Figures 2-4, which show a single scissor unit 26. Each scissor unit 26 is formed by a pair of pivotally connected scissor bars 28 and 30 which are pivotally connected to supports 14 by upper mounts in the form of fixed fittings 32 and by slide mounts in the form of fittings 34 as hereinafter described. The outer upper ends of each scissor assembly is connected to a respective fixed fitting 32 while the outer lower ends of each scissor assembly is connected to a respective slide fitting 34.

It is pointed out on page 14, line 1 that an important aspect of the present invention resides in the construction of the fittings, which interconnect the scissor assemblies and the roof support assemblies to the upright supports. The structure of fittings 32 and 34 is introduced beginning on page 14 line 7 and with reference to Figure 6, where it may be seen that upper fitting 32 forms a cap on upper section 16 of upright support 14. Upper fitting 32 includes a pair of generally rigid lobes 44, which are generally oriented at right angles with respect to one another. The structure of upper fitting 32, however, may be more fully appreciated in reference to Figures 7 and 8. Here, it may be seen that fitting 32 includes a central body 46 that includes a square shaped cavity 48 (shown in phantom). Cavity 48 is sized and adapted to be press fit or otherwise affixed to the upper end of upright support 14. Here, cavity 48 is square in cross section to mate with the square shaped cross section of upright support 14. It should be understood, however, that other cross-sectional geometries for upright support 14 are within the scope of this invention such that the cross-section of cavity 48 should be such as to mate with the geometry of the upright support.

Continuing on page 14, line 20 and shown in Figure 8, each of lobes 44 is off-set with respect to axes "X" and "Y". This is done to accommodate the thickness of the scissor units 26 and, specifically, the off-set nature of scissor bars 28 and 30. In any event, each of lobes 44 is provided with a transverse bore 50 extending therethrough to accommodate the mounting of the scissor units thereto. Lobes 44 have outward, substantially parallel sidewalls 45 that are spaced apart to define a thickness for lobe 44 that, as is shown, is approximately 1/3 of the dimension of one side of fitting 32.

A top plan view of slide fitting 34 is best shown in Figure 9. Here it may be seen that slide fitting 34 includes a central body 52 which has a passageway 54 extending therethrough so that slide bracket 34 may freely slide on section 16 of upright support 14. Slide fitting 34 includes a pair of lobes 56 that are substantially rigid and are generally oriented at right angles to one another. Lobes 56 are provided with bores 58 and are offset from axes "S" and "T", again to accommodate the mounting of scissor units 26. In addition, slide-fitting 32 includes a lobe 60 disposed between lobes 58 in order to connect to a roof support member 38. To this end, lobe 60 includes a bore 62 to accommodate mounting of this roof support member. Lobes 56 have outer sidewalls 57 that define a thickness that is approximately 1/3 the side dimension of slide fitting 34. Lobe 60 has outer faces 61 that are generally parallel to one another and have a thickness similar to lobes 56 and 44. Ramp structure 59 is provided to engage button latch 61 to facilitate sliding movement of slide bracket 34 into a latched state where it can retain the slide mount in a location proximate to the upper mount but can release to allow the slide mount to move to a location more remote from the upper mount as the scissor assemblies

close. Each of fittings 32 and 34 are, for example, injection molded out of stiff, durable plastic such as nylon 66 or other suitable material.

As described beginning on page 15 line 21 and as is best shown in Figures 6, 10 and 12-14, each of lobes 44, 56 and 60 are constructed to engage a socket fitting that has portions that are spaced apart from one another to define a channel opening therebetween with at least one of said portions having a substantially flat face thereby to form sliding contact surface with the respective said lobe. Specifically, in this embodiment, socket fitting 64 is formed by a main body 66 and a pair of arms 70 that define a channel or cavity therebetween that is adapted to mateably engage a respective said lobe in close-fitted engagement. With this particular construction, a socket 68 is bounded by main body 66 as well as faces 71 of arms 70 that are substantially parallel, spaced apart relationship from one another a distance that is only slightly more than the thickness of lobes 44, 56 and 60. Each of arms 70 is provided with a bore 72, and bores 72 register with a respective bore 50, 58 and 62 in order to mount socket fittings 64 for pivotal motion on a respective lobe. To this end, pins 74 serve to pivotally connect each socket fitting 64 to its respective lobe.

Continuing on page 16 line 10, each of socket fittings 64 is constructed of strong, durable rigid plastic, again such as nylon 66 or other suitable material, and it should be understood that, when mounted, faces 71 are, respectively, in sliding pivotal contact with flat faces 45, 57 and 61. This sliding contact, along with the relative rigidity of the lobes and arms help resist lateral deflection and torsional movement, especially for scissor units 26. This helps stabilize and rigidify framework 12 during use.

As described beginning on page 16, line 16, in order to connect scissor bars 28 and 30 of scissor units 26 to respective ones of socket fittings 64, main body 66

of socket fitting 64 is provided with a cavity to receive and to mount an end of scissor bars 28, 20 therein. As is shown in Figure 11, cavity 76 is preferably oval in cross-section and, it should be understood, that scissor bars 28 and 30, in this embodiment are desirably hollow tubular metal bars that have an oval cross-section. With reference, though, to Figures 16 and 17, it should be appreciated that other cross-sections are within the scope of this invention. These cross-sections include, for example, square and non-square rectangles, circles or any other convenient geometry. For example, in Figure 16, it may be seen that socket fitting 164 has a cavity 176 that is constructed to receive a tubular member that is circular in cross-section. In Figure 17, socket-fitting 264 includes a cavity 276 of square cross-section to receive a square shaped tubular member. The tubular members, which form scissor bars 28 and 30, may be formed, for example, of steel, aluminum, fiberglass, plastic or other similar materials.

As pointed out on page 17, line 16, the above structure has been described with respect to a canopy framework 12 that includes a single scissor unit 26 which forms a scissor assembly, it should be understood that larger frameworks may be created using the fittings 32, 34, and 64. Thus, for example, as is shown in Figure 18, a framework 112 may be created wherein two scissor units 126 are connected end-to-end to form a scissor assembly 127. Scissor assemblies 127 then interconnect adjacent ones of upright supports 114. Here, again, roof supports 138 extend radially outwardly from dome cap 136 and are connected to slide fittings 134 on each upright 114. Scissor assemblies 127 have their outer upper ends connected to fittings 132 on the upper corners of upright supports 114 while scissor assemblies 127 have their lower outer corners connected to slide brackets 134.

As described on page 18 line 3, the connection of the scissor assemblies 127 to fittings 132 and 134 are the same as that described with respect to canopy framework 12. Likewise, the connection of roof support members 138 to dome cap 136 and to fittings 134 is the same as that described with framework 12. Further, it should be understood that the construction of each of fittings 132 and 134 as well as each scissor unit 126 and a dome cap 136 correspond to that described with respect to fittings 32 and 34, cap 36 and scissor units 26.

As described beginning on page 19, line 7, since the framework 112 includes two scissor units 126 connected in relation, it is helpful to have a center fitting that will mate with socket fittings 164. Thus, as is shown in Figure 20, center fitting 133 is provided to have a central portion 135 from which a pair of staggered lobes 137 project. Lobes 137 are provided with faces 145 that are in sliding contact with faces 71 on arms 70 of socket fitting 64. Each of lobes 137 as provided with a bore 150 so as to receive a pin 74 therethrough.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection are Appealed:

A. Has the Examiner established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claim 1 as being unpatentable over U.S. Patent No. 5,244,001 to Lynch (“Lynch ‘001”) in view of U.S. Patent No. 2,723,673 to Call (“Call ‘673”) and U.S. Patent No. 5,701,923 to Losi (“Losi ‘923”)?

B. Is claim 22 properly rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication No. 2004/0084074 to Chiu (“Chiu ‘074”)?

C. Has the Examiner established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claim 22 as being unpatentable over Lynch ‘001 in view of Call ‘673 and Losi ‘923?

D. Has the Examiner established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claim 22 as being unpatentable over Lynch ‘001 in view of Call ‘673 and U.S. Patent No. 5,884,647 to Dwek (“Dwek ‘647”)?

VII. GROUPING OF THE CLAIMS

Appellants assert that each of claims 1 and 22 stands alone. If claim 1 falls, then claims 2-9, 12-14, 17, and 18 also fall. If claim 22 falls, then claims 24-31, 35 and 36 fall.

VIII. ARGUMENT

A *prima facie* case of obviousness requires that the prior art reference (or references when combined) teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q. 2d 1438 (Fed. Cir. 1991); *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974); *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970) ("All words in a claim must be considered in judging patentability of that claim against the prior art."); MPEP §2143.03.

Further, a *prima facie* case of obviousness also requires that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *In re Vaeck*, supra; *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 U.S.P.Q. 2d 1941 (Fed. Cir. 1992). In establishing a *prima facie* case of obviousness under 35 U.S.C. §103, it is incumbent upon the Examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Int. 1985). Furthermore, where modifying the reference would destroy the intent, purpose, or function of the reference, it is improper to make a rejection under 35 U.S.C. §103. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in

fact, there is a disincentive to make such a modification. See *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. 1125.

The requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the applicant's disclosure. See, e.g., *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1052, 5 U.S.P.Q.2d 1434 (Fed. Cir.), *cert denied*, 488 U.S. 825 (1988); *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (The teaching or suggestion to make the claimed combination must not be based on applicant's disclosure); MPEP §2142. That is, it is improper to use hindsight reconstruction of the claimed invention using the applicant's structure as a template. *In re Gorman*, 18 U.S.P.Q. 2d 1885 (Fed. Cir. 1991). When the only suggestion to combine the teachings of the references in the manner proposed by the Examiner is found in the hindsight accorded one who first views the applicant's disclosure, an obviousness rejection under 35 U.S.C. §103 is improper. See *In re Fritch*, 972 F.2d 1260, 1266, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992).

It is axiomatic that the mere fact that the prior art structure could be modified does not make such a modification obvious unless the prior art *suggests the desirability of doing so*. See *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984); *In re Mills*, 916 F. 2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990); MPEP § 2143.01 Further, the fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993).

A claim is anticipated under 35 U.S.C. § 102 "only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single

prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). This includes each element and each limitation of the claim. *Hoover Group, Inc. v. Custom Metalcraft, Inc.*, 66 F.3d 299, 36 USPQ2d 1101 (Fed. Cir. 1995). If there are differences, whether characterized as insubstantial, there is no anticipation, even where the missing element could be supplied by the knowledge of one skilled in the art. *Structural Rubber Prod. Co. v. Park Rubber Co.*, 749 F.2d 707, 223 USPQ 1264 (Fed. Cir. 1984).

A. The Examiner has failed to established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claim 1 as being unpatentable over Lynch ‘001 in view of Call ‘673 and Losi ‘923.

Claim 1 includes the recitation that “each of said upper and lower center fittings including oppositely projecting fitting lobes that longitudinally offset from one another.” The Examiner contends that it would have been obvious to one of skill in the art to reverse the lobes and arms of Lynch ‘001 in light of Call ‘673 (Final Office Action, Para 34). A *prima facie* case of obviousness requires that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *See In re Vaeck*, supra.

There is no reasonable, non-hindsight motivation to combine the center fittings of Lynch ‘001’ with the analogous structures of Call ‘673, which are the telescoping sections 12b and 13d (col 4, lines 25-47). To do so would result in a canopy frame with rigid connections between the scissor units. Accordingly, rigid connections would prevent the frame from being collapsed, thereby the purpose of the canopy disclosed in Lynch ‘001 would be destroyed. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. *See In re*

Gordon, Supra. The Examiner has relied on hindsight to select components from non-analogous structures of Call '673 to combine with Lynch '001 that would otherwise be illogical to combine.

The Examiner also contends that it would have been obvious to one of skill in the art to combine the teachings of Lynch '001 with those of Losi '923 in order to arrive at the center fittings recited in claim 1 (Final Office Action, Para 36). The Examiner has relied on hindsight to select components from non-analogous structures of Losi '923 to combine with Lynch '001 that would otherwise be illogical to combine. The structure in Losi '923 that is most analogous to the center fitting, as recited in claim 1, is simply the pivotal joint of the scissor type linkages (Losi '923, col 4, line 9). In fact Losi '923 does not describe a fitting in this location. It appears from Figure 10, for example, that Losi '923 contemplates a bolt or pin to connect the two scissor units.

Assuming *arguendo* one were motivated to combine the teaching of Losi '923 with Lynch '001, the resulting canopy frame would not include the center fittings as recited in claim 1. If one were to combine the references the scissors units of Lynch '001 would simply be connected by a pin or bolt as shown in Losi '923 (see Figure 10).

Because there is no motivation to combine Lynch '001 with Call '673 and Losi '923, and even if one were to combine these references the resulting structures would not result in a center fitting including oppositely projecting fitting lobes that longitudinally offset from one another, claim 1 and all claims depending therefrom are believed to be allowable.

B. The Examiner's rejection of claim 22 under 35 U.S.C. §102(e) as being anticipated by Chiu '074 is improper.

Independent claim 22 recites mounts including “a lobe having outwardly facing, spaced-apart and substantially parallel sidewalls and terminating in a rounded end.” Claim 22 also recites a “socket fitting including first and second arm portions extending for a common length to terminate in rounded arm ends and having substantially parallel opposed face portions.” Claim 22 goes on to recite that the “lobe is in close-fitted engagement with each of the face portions forming sliding contact surfaces with respective said lobe.”

A claim is anticipated under 35 U.S.C. § 102 “only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” See *Verdegaal Bros.*, supra.

Chiu '074 describes neither a lobe terminating in a rounded end nor arm portions that terminate in rounded arm ends. With reference to Figure 3 of Chiu '074 it can be seen that Chiu contemplates square or rectangular ends 54, 76, and 78.

Chiu '074 also fails to teach close fitted-engagement and sliding contact surfaces between the lobe and arm portions. In Chiu '074 there is no close-fitted engagement between the lobe/flange 54 and arms 78 and 76 because Chiu includes a sheath 56 (See figure 3), which requires that arms 78 and 76 be spaced apart more than the width of flange 54 in order to accommodate sheath 56. Furthermore, because sheath 54 is interposed between the arms 78, 76 and lobe/flange 54, there is no contact, sliding or otherwise, between the lobe/flange 54 and arms 78, 76.

Because Chiu '074 fails to describe each and every element as recited in claim 22, it is believed that claim 22 and all claims depending therefrom are allowable.

C. The Examiner has failed to established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claim 22 as being unpatentable over Lynch ‘001 in view of Call ‘673 and Losi ‘923.

Independent claim 22 recites that “at least some of said upper and lower mounts including a lobe.” Claim 22 also recites that the edge scissor assemblies are “each constructed by at least one pair of scissor bars pivotally connected to one another.” The scissor assemblies on the outer upper ends and outer lower ends are provided with socket fittings. These socket fittings terminate in rounded arm ends having substantially parallel opposed face portions. Moreover, the lobes on the upper and lower mounts terminate in rounded ends. In addition, the socket fittings have a female cavity mountably receiving an end portion of a respective scissor bar. The combination of Lynch ‘001 and Call ‘673 do not teach this recited structure since the fittings of Call (even though they are not scissor fittings) fit within the tubular bars. Also, Losi ‘923 fails to teach both the mount with lobes and the socket fittings on the upper and lower outer ends of the scissor assemblies.

A *prima facie* case of obviousness requires that the prior art reference (or references when combined) teach or suggest all the claim limitations. See *In re Vaeck*, supra. Because Lynch in view of Call and Losi fails to teach all of the elements recited in claim 22, claim 22 and all claims depending therefrom are believed allowable.

D. The Examiner has failed to established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claim 22 as being unpatentable over Lynch ‘001 in view of Call ‘673 and Dwek ‘647.

Independent claim 22 recites that “at least some of said upper and lower mounts including a lobe.” Claim 22 also recites that the edge scissor assemblies are “each constructed by at least one pair of scissor bars pivotally connected to one

another.” The scissor assemblies on the outer upper ends and outer lower ends are provided with socket fittings. These socket fittings terminate in rounded arm ends having substantially parallel opposed face portions. Moreover, the lobes on the upper and lower mounts terminate in rounded ends. In addition, the socket fittings have a female cavity mountably receiving an end portion of a respective scissor bar.

A *prima facie* case of obviousness requires that the prior art reference (or references when combined) teach or suggest all the claim limitations. See *In re Vaeck*, supra. The combination of Lynch ‘001 and Call ‘673 do not teach this recited structure since the fittings of Call (even though they are not scissor fittings) fit within the tubular bars.

Furthermore there is no motivation to combine Dwek ‘647 with Lynch ‘001 and Call ‘673. Contrary to the Examiners contention that using the center connector of Dwek ‘647 would make the frame more simple and easy to use, dowel pins and thumb screws would unnecessarily complicate the assembly of the canopy frame as disclosed by Lynch ‘001, thereby destroying one of the advantages of the Lynch ‘001 frame. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, Supra. The Examiner has relied on hindsight to select components from non-analogous structures of Call ‘673 and Dwek ‘647 to combine with Lynch ‘001 that would otherwise be illogical to combine.

Because Lynch ‘001 in view of Call ‘673 and Dwek ‘647 fail to teach all of the elements recited in claim 22 and fail to provide any motivation for combining these references, claim 22 and all claims depending therefrom are believed allowable.

IX. CONCLUSION

Based on the foregoing, Appellants submit that all claims 1-9, 12-14, 17, 18, 22, 24-31, 35, and 36 are allowable. Further, Appellants maintain that the Examiner has improperly rejected the appealed claims of this application and has improperly failed to enter allowance in this case. As argued above, the application discloses and claims an invention not fully and fairly anticipated or obviated by the applied references either alone or in combination. Therefore, Appellants respectfully request that the Board reverse the Examiner's decision and grant allowance of these claims.

Respectfully submitted,

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CLAIMS APPENDIX

1. (Previously Presented) An expandable framework adapted to move between an expanded state for supporting a canopy covering above a support surface and a collapsed state for storage, comprising:

(A) a plurality of upright support members each having a bottom end portion positionable on the support surface and a top end portion opposite the bottom end, said support members being oriented alongside one another in the collapsed state and spaced apart from one another when in the expanded state;

(B) upper and lower mounts disposed on each corner support member, at least some of said upper and lower mounts including a lobe having outwardly facing, spaced-apart and substantially parallel sidewalls;

(C) a plurality of edge scissor assemblies with there being an edge scissor assembly interconnecting peripherally adjacent ones of said corner support members, each edge scissor assembly including a pair of outer upper ends and a pair of outer lower ends, said edge scissor assemblies operative to open and close whereby said expandable framework may move between the expanded and collapsed states, at least some of said outer upper ends and said outer lower ends provided with a socket fitting including spaced apart portions that are spaced apart from one another to define a channel opening therebetween that is adapted to mateably engage a respective said lobe in close-fitted engagement, and with at least one of said portions having a substantially flat face thereby to form sliding contact surface with the respective said lobe;

(D) each said edge scissor assembly including a pair of scissor units connected in end-to-end relation by an upper center fitting interconnecting the upper inner ends of said scissor units together and a lower center fitting interconnecting the

lower inner ends of said scissor unit together, each of said upper and lower center fittings including oppositely projecting fitting lobes that are longitudinally offset from one another, said upper and lower inner ends of said scissor units being provided with a socket fitting including spaced apart first and second arm portions having substantially parallel opposed face portions defining a channel opening therebetween that are adapted to mateably receive a respective said fitting lobe of a respective said upper and lower center fittings in close-fitted engagement thereby to form sliding contact surfaces therewith; and

(E) a fastener securing each said lobe for pivotal movement in the respective said socket fitting.

2. (Original) An expandable framework according to claim 1 wherein said socket fittings each include first and second arm portions extending for a length and having substantially parallel opposed face portions defining the channel opening, said first and second arm portion adapted to receive the respective said lobe therebetween with each of the face portions forming sliding contact surfaces with the respective said lobe.

3. (Original) An expandable framework according to claim 1 wherein a pair of upper and lower mounts are disposed on each of said upright support members, one of said pair being a stationary mount and another of said pair being a slide mount slideably secured to said upright support member and movable therealong between locations proximate to and remote from said stationary mount when the respective said edge scissor assembly opens and closes.

4. (Original) An expandable framework according to claim 3 wherein said upper mount in each pair is the stationary mount.

5. (Original) An expandable framework according to claim 3 including a latch element associated with each of said upright support members, said latch operative to latch the respective said slide mount in the location proximate to the respective said stationary mount.

6. (Original) An expandable framework according to claim 1 including a roof support assembly supported above the support surface by said upright support members when in the expanded state, said roof support assembly operative to support said canopy covering.

7. (Original) An expandable framework according to claim 6 wherein said roof support assembly includes a plurality of roof support members pivotally connected to one another at proximate ends thereof to form an apex and extending generally radially outwardly from one another when in the expanded state, each roof support member pivotally connected at a distal end thereof to one of said mounts on a respective upright support member.

8. (Original) An expandable framework according to claim 6 wherein each said roof support member includes a pair of extendable sections movable between a retracted state when said framework structure is in the collapsed state and an extended state when said framework structure is in the expanded state.

9. (Original) An expandable framework according to claim 8 wherein each said roof support member includes a roof latch element associated therewith operative to retain the extendable sections thereof in the extended state.

10. (Withdrawn) An expandable framework according to claim 8 wherein said extendable sections telescope with respect to one another.

11. (Withdrawn) An expandable framework according to claim 8 wherein said extendable sections fold with respect to one another.

12. (Original) An expandable framework according to claim 7 including an apex cap member centrally disposed with respect to said framework structure, the proximate ends of said roof support members being pivotally secured to said apex cap member.

13. (Original) An expandable framework according to claim 7 wherein a pair of upper and lower mounts are disposed on each of said upright support members, one of said pair being a stationary mount and another of said pair being a slide mount slideably secured to said upright support member and movable therealong between locations proximate to and remote from said stationary mount when the respective said edge scissor assembly opens and closes and wherein each said roof support member is pivotally connected to a respective stationary mount and including a cantilever section pivotally connected at a first cantilever end to said roof support member and at a second cantilever end to said slide mount on the respective said upright support member.

14. (Original) An expandable framework according to claim 6 wherein said roof support assembly includes at least one central scissor assembly.

15. (Canceled)

16. (Canceled)

17. (Original) An expandable framework according to claim 1 wherein said edge scissor assemblies are constructed by at least one pair of scissor bars pivotally connected to one another.

18. (Original) An expandable framework according to claim 1 wherein said scissor bars are tubular members having a cross-section selected from a group consisting of ovals, circles, squares and rectangles.

19. (Withdrawn) An expandable framework according to claim 1 wherein said socket fittings include a web portion extending between said first and second arm portions for at least a portion of the length thereof.

20. (Withdrawn) An expandable framework according to claim 1 wherein said lobe is T-shaped in cross-section so as to have a blade portion that can be matably engaged in the channel of a respective socket fitting and a reinforcing web extending transversely of said blade portion.

21. (Withdrawn) An expandable framework according to claim 1 wherein at least some of said mounts have a plurality of lobes disposed thereon and including a connector web extending therebetween.

22. (Previously Presented) An expandable canopy adapted to be erected on a support surface, comprising:

(A) a framework adapted to rest on a support surface and adapted to move between an expanded state for use and a collapsed state for storage, said framework including:

(1) a plurality of upright support members each having a bottom end portion positionable on the support surface and a top end portion opposite the bottom end, said support members being oriented alongside one another in the collapsed state and spaced apart from one another when in the expanded state;

(2) upper and lower mounts disposed on each corner support member, at least some of said upper and lower mounts including a lobe having outwardly facing, spaced-apart and substantially parallel sidewalls and terminating in a rounded end;

(3) a plurality of edge scissor assemblies each constructed by at least one pair of scissor bars pivotally connected to one another with there being an edge scissor assembly interconnecting peripherally adjacent ones of said corner support members, each edge scissor assembly including a pair of outer upper ends and a pair of outer lower ends, said edge scissor assemblies operative to open and close whereby said expandable framework may move between the expanded and collapsed states, at least some of said outer upper ends and said outer lower ends provided with a socket fitting including first and second arm portions extending for a common length to terminate in rounded arm ends and having substantially parallel opposed face portions that are spaced apart from one another to define a channel opening therebetween that is adapted to mateably engage a respective said lobe in close-fitted engagement with each of the face portions forming sliding contact surfaces with the respective said lobe and with a female cavity mountably receiving an end portion of a respective said scissor bar,

(4) a fastener securing each said lobe for pivotal movement in the respective said socket fitting, and

(5) a roof support assembly supported above the support surface by said upright support members when said framework is in the expanded state; and

(B) a canopy covering sized and adapted to extend across said framework and be supported by said roof support assembly when said framework is in the expanded state.

23. (Canceled)

24. (Original) An expandable framework according to claim 22 wherein a pair of upper and lower mounts are disposed on each of said upright support members, one of said pair being a stationary mount and another of said pair being a slide mount slideably secured to said upright support member and movable therealong between locations proximate to and remote from said stationary mount when the respective said edge scissor assembly opens and closes.

25. (Original) An expandable framework according to claim 24 wherein said upper mount in each pair is the stationary mount.

26. (Original) An expandable framework according to claim 24 including a latch element associated with each of said upright support members, said latch operative to latch the respective said slide mount in the location proximate to the respective said stationary mount.

27. (Original) An expandable framework according to claim 22 wherein said roof support assembly includes a plurality of roof support members pivotally connected to one another at proximate ends thereof to form an apex and extending generally radially outwardly from one another when in the expanded state, each roof support member pivotally connected at a distal end thereof to one of said mounts on a respective upright support member.

28. (Original) An expandable framework according to claim 22 wherein each said roof support member includes a pair of extendable sections movable between a retracted state when said framework structure is in the collapsed state and an extended state when said framework structure is in the expanded state.

29. (Original) An expandable framework according to claim 22 wherein said roof support assembly includes at least one central scissor assembly.

30. (Original) An expandable framework according to claim 22 wherein each said edge scissor assembly includes a pair of scissor units connected at upper and lower inner ends thereof in end-to-end relation.

31. (Original) An expandable framework according to claim 30 including an upper center fitting interconnecting the upper inner ends of said scissor units together and a lower center fitting interconnecting the lower inner ends of said scissor unit together, each of said upper and lower center fittings including oppositely projecting fitting lobes, said upper and lower inner ends of said scissor units being provided with a socket fitting including spaced apart first and second wall portions having substantially parallel opposed face portions defining a channel opening therebetween that are adapted to mateably receive a respective said fitting lobe of a respective said upper and lower center fittings in close-fitted engagement thereby to form sliding contact surfaces therewith.

32. (Withdrawn) An expandable framework according to claim 22 wherein said socket fittings include a web portion extending between said first and second arm portions for at least a portion of the length thereof.

33. (Withdrawn) An expandable framework according to claim 22 wherein said lobe is T-shaped in cross-section so as to have a blade portion matably received in the channel of a respective socket fitting and a reinforcing web extending transversely of said blade portion.

34. (Withdrawn) An expandable framework according to claim 22 wherein at least some of said mounts have a plurality of lobes disposed thereon and including a connector web extending therebetween.

35. (Previously Presented) An expandable framework according to claim 22 wherein scissor bars are tubular members having an oval cross-section.

36. (Original) An expandable framework according to claim 22 including at least one side panel adapted to be supported by said framework.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None